

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-40 (canceled)

1 41. (previously presented) A self-cleaning colloidal slurry composition for
2 superfinishing a surface of a substrate, the self-cleaning colloidal slurry composition
3 comprising:

4 a carrying fluid;

5 colloidal particles;

6 etchant for etching the substrate;

7 a surfactant precipitated onto a surface of at least one of the substrate and the
8 colloidal particles, the surfactant having a hydrophobic section that forms a steric
9 hindrance barrier between the substrate and the colloidal particles,

10 wherein the substrate is selected from a group consisting of a glass disk substrate,
11 a ceramic disk substrate, and a glass-ceramic disk substrate for use in a data storage
12 device.

1 42. (previously presented) The self-cleaning colloidal slurry composition as
2 recited in claim 41, wherein the surfactant is sodium octyl sulfate.

1 43. (new) The self-cleaning colloidal slurry composition as recited in claim 42,
2 wherein the self-cleaning colloidal slurry composition has a pH that is approximately
3 equal to or less than the isoelectric point of the surface onto which the surfactant is
4 precipitated.

1 44. (new) The self-cleaning colloidal slurry composition as recited in claim 42,
2 wherein the self-cleaning colloidal slurry composition has a pH that is approximately ≤ 7 .

1 45. (new) A self-cleaning colloidal slurry composition for superfinishing a surface
2 of an aluminosilicate glass substrate for use in a data storage device, the self-cleaning
3 colloidal slurry composition comprising:

4 a carrying fluid;

5 colloidal silica particles having a nominal size of approximately 2 - 200 nm;

6 etchant for etching the aluminosilicate glass substrate, wherein the etchant is a
7 metal etchant selected from a group consisting of Ce^{+4} and Fe^{+3} ions, and combinations
8 thereof, and wherein the metal etchant is present in solution and/or as a colloid and/or on
9 the colloidal silica particles;

10 an ethylene oxide propylene oxide block copolymer surfactant adsorbed onto a
11 surface of at least one of the aluminosilicate glass substrate and the colloidal silica
12 particles, the ethylene oxide propylene oxide block copolymer surfactant having a
13 hydrophobic section that forms a steric hindrance barrier between the aluminosilicate
14 glass substrate and the colloidal silica particles;

15 and wherein the self-cleaning colloidal slurry composition has a pH of
16 approximately 0 to 4.

1 46. (new) The self-cleaning colloidal slurry composition as recited in claim 45,
2 wherein the self-cleaning colloidal slurry composition has a pH of approximately 0.8 to
3 3.0.

1 47. (original) The self-cleaning colloidal slurry composition as recited in claim 45,
2 wherein the self-cleaning colloidal slurry composition has a pH of approximately 1.0 to
3 2.0.

1 48. (new) The self-cleaning colloidal slurry composition as recited in claim 45,
2 wherein the colloidal silica particles include colloidal silica spheres having a nominal size
3 of approximately 7 nm.

1 49. (new) The self-cleaning colloidal slurry composition as recited in claim 45,
2 wherein the metal etchant is Ce^{+4} ions.

1 50. (new) A self-cleaning colloidal slurry composition for finishing a surface of an
2 aluminosilicate glass substrate for use in a data storage device, the self-cleaning colloidal
3 slurry composition comprising:
4 a carrying fluid;
5 colloidal silica particles;
6 etchant for etching the aluminosilicate glass substrate, wherein the etchant is a
7 metal etchant selected from a group consisting of Ce^{+4} and Fe^{+3} ions, and combinations
8 thereof, and wherein the metal etchant is present in solution and/or as a colloid and/or on
9 the colloidal silica particles;
10 an ethylene oxide propylene oxide block copolymer surfactant adsorbed and/or
11 precipitated onto a surface of at least one of the aluminosilicate glass substrate and the
12 colloidal silica particles, the ethylene oxide propylene oxide block copolymer surfactant
13 having a hydrophobic section that forms a steric hindrance barrier between the
14 aluminosilicate glass substrate and the colloidal silica particles,
15 wherein the self-cleaning colloidal slurry composition has a pH of approximately
16 0 to 4, and
17 and wherein the colloidal silica particles have a nominal size of approximately
18 70 - 200 nm to provide a textured surface on the aluminosilicate glass substrate.